

US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: September 29, 2005
Comment Deadline: October 28, 2005
Corps Action ID #: 200331022

All interested parties are hereby advised that the Wilmington District, Corps of Engineers (Corps) has received an application for work within jurisdictional waters of the United States. Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at www.saw.usace.army.mil/wetlands

Applicant:

Dr. Gregory J. Thorpe, Environmental Management Director
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548

Authority

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404 of the Clean Water Act (33 U.S.C. 1344).

Location

US 221 is a north-south facility that extends from the South Carolina State Line (SCSL) in Rutherford County to the Virginia State Line in Alleghany County. The current project (TIP R-2233A) is 10.9 miles located between the SCSL (35.182982°N, 81.844113°W) and the US 74 Bypass (35.307002°N, 81.921613°W) south of Rutherfordton and west of Forest City, in Rutherford County. The entire project is located in the Broad River Basin (Hydrologic Unit 03050105). There are nineteen streams that maybe impacted including Floyd's Creek and unnamed tributaries, Long Branch, unnamed tributaries to Big Horse Creek, an unnamed tributary to Richardson Creek, and the Broad River and unnamed tributaries.

Existing Site Conditions

US 221 is classified as a Rural Minor Arterial in the North Carolina functional classification system. Within the project area, it is a two-lane road, with 10-foot lanes and grass shoulders which vary from six to nine feet wide. The existing right-of-way varies from 60 to 100 feet wide. No control of access exists with the exception of the vicinity of the US 74 Bypass interchange. In addition, this is the only

intersection that is not at grade and stop sign controlled. The US 74 interchange includes ramp terminals that are stop sign controlled. Two railroad crossings exist in this area that are grade-separated from the roadway by bridges. There are five major structures associated with water bodies within the project area including three bridges and two large culverts.

The project area is predominantly rural with a mixture of low-density residential and scattered commercial, industrial and institutional land uses. The commercial development is primarily businesses such as convenience stores and gas stations. US 221 crosses several areas with prime farmland soils. However, based on field observations, little land along the existing roadway is used for agriculture. Rutherford County is currently experiencing a downward economic cycle associated with the closure of textile plants. The result is that the area is not under significant development pressure or urbanization.

Terrestrial and wetland communities were identified in the project area. Terrestrial communities include mesic mixed hardwood forest, dry-mesic oak-hickory forest, piedmont/mountain levee forest, disturbed-maintained communities, and pine plantation. All these areas are characteristic of low elevation mountain areas and upper piedmont like that found in Rutherford County. The wetlands are typically seepage areas near the headwaters of small streams. In many cases, these wetlands have been partially cleared, mowed, or otherwise disturbed. The dominant tree species include river birch, tulip poplar, and red maple. Invasive exotics such as Chinese privet and Japanese honeysuckle are found frequently. The herbaceous layer is dense or moderately dense and includes netted chain fern, jewelweed, cinnamon fern, soft rush, and sedges. The wetland communities are quite small ranging from 0.04 acre to 0.15 acre within the study area.

Nineteen streams and two ponds in sub-basin 03-08-02 of the Broad River Basin (HUC 03050105) are located within the project area. Three of these channels are named, Long Branch, Floyd's Creek, and the Broad River. The remainder are unnamed tributaries to these channels and to Big Horse and Richardson Creeks. The following table provides the characteristics of each channel.

Table 1. Streams in Project Study Area

Stream	Bank Height (feet)	Channel Width (feet)	Substrate	Water Clarity	Stream Determination
C (Long Branch)	2 to 6	16	Gravel/Rock	Clear	Perennial
D*	2 to 12	8	Sand/Gravel	Clear	Intermittent
Floyd's Creek	8 to 12	25	Sand/Gravel	Turbid	Perennial
F	1 to 12	4	Sand/Gravel	Clear	Intermittent
G	1 to 8	6	Sand/Gravel	Clear	Intermittent
GA	2 to 8+	6	Sand/Gravel	Clear	Intermittent
GB	4 to 20+	6	Sand/Gravel	Clear	Intermittent
H	1 to 6+	10	Rock/Gravel/Sand	Clear	Perennial
I	2 to 6	4	Gravel/Sand/Cobble/Some Bedrock	Slightly Turbid	Perennial
UT I	3 to 6	4	Gravel/Sand/Cobble	Slightly Turbid	Perennial
J	0 to 2	1.5 to 2.5	Sand/Gravel	Clear	Perennial

K	1 to 3	3.5	Gravel/Sand/Cobble	Turbid	Intermittent
L	3 to 4	3	Gravel/Sand/Cobble	Slightly Turbid	Perennial
M	1 to 12	6 to 15	Gravel/Sand/Cobble	Slightly Turbid	Perennial
O	0.5	2 to 3	Sand/Gravel	Clear	Intermittent
P	1	2.5	Sand/Gravel	Clear	Perennial
Q	3 to 4	3	Gravel/Sand/Cobble	Clear	Perennial
Broad River	Variable	240	Unknown	Turbid	Perennial

* Stream D was determined to be non-jurisdictional from US 221 to a point 100 feet east of the roadway. Past this point, Stream D is jurisdictional.

Of the five federally protected species known to occur in Rutherford County, habitat exists for two within the project area. These are the Indiana bat (*Myotis sodalis*) and dwarf-flowered heartleaf (*Hexastylis naniflora*). No caves, mines, or other suitable shelters for hibernation for the Indiana bat are present, however appropriate roosting habitat is present. No known occurrence of Indiana bat has been reported within the project vicinity. The NC Natural Heritage Program records three occurrences of dwarf-flowered heartleaf in the area of the project. Field surveys were conducted in late April through mid-May 2004, when this species was in flower. Suitable habitat was encountered in many places within the study area and seven previously undocumented populations were identified. Individuals were in flower at each location, and all populations seemed healthy and vigorous.

Applicant's Stated Purpose

The purpose of the project is to improve travel time, safety, and system linkage along the existing US 221 intrastate corridor between the SCSL and the US 74 Bypass in Rutherford County.

The proposed project will address the following needs:

- Without improvements, US 221 will operate at capacity (level of service E) in the years 2008 and 2030.
- Total and fatal accident rates along US 221 are higher than the statewide average for two-lane rural US routes.

Project Description

A four-lane median divided facility is proposed for US 221. The proposed median will be 46 feet wide, except from SR 2150 to just south of the US 74 Bypass, where either a 46-foot or a 23-foot median is being considered due to existing development in this area. Through the US 74 interchange the proposed median will narrow to four feet across the bridge over US 74. Twelve-foot lanes and ten-foot shoulders (four-foot paved) are proposed. The proposed typical sections are attached.

Alternatives investigated for this project included alternate modes of transportation, typical section alternatives, and alignment alternatives. Expansion of local or inter-city bus service to include the project area was not deemed feasible as the area is rural and the reduction in traffic along US 221 would not be

sufficient to improve travel time along the US 221 corridor. Staggering work hours and car-pooling are ways to reduce congestion, but are outside of NCDOT control.

The proposed additional lanes would be added to either the west side or east side of existing US 221. The project was divided into five sections in order to evaluate alternatives. Widening both to the west and east sides were examined within each section. Appropriate widening schemes have been selected for Sections 1, 3, and 4. The proposed widening associated with each section is as follows:

- Section 1 of the project extends from the SCSL to SR 2105 (State Line Road). Widening to the west within this section will result in less impacts to streams, impact a smaller area containing federally-threatened dwarf-flowered heartleaf (*Hexastylis naniflora*), and relocate fewer homes than widening to the east. For these reasons, widening to the west is the proposed alternative even though it will impact more wetlands.
- Section 2 of the project extends from SR 2105 to approximately 0.5 mile south of SR 2109 (Island Fork Road). Both east and west side widening are to be considered for this section.
- Section 3 extends from 0.5 mile south of SR 2109 to approximately 0.2 mile south of SR 2230 (New Jerusalem Church Road). East side widening has been proposed for this section because it would relocate fewer homes.
- Section 4 extends from 0.2 mile south of SR 2230 to SR 2215 (Henson Drive). East side widening is proposed because it will result in lower stream impacts, less impacts to dwarf-flowered heartleaf, and will relocate fewer homes and businesses.
- Section 5 extends from SR 2215 to just north of the US 74 Bypass. Both east and west side widening are to be considered for this section. In addition, both a 23-foot and a 46-foot median are being considered for this section due to the amount of development in the Danieltown community. Through the US 74 Bypass interchange, the proposed median would narrow. On the bridge carrying US 221 over the US 74 Bypass, opposing travel lanes would be separated by a four-foot paint striped divider. Turn lanes would be provided for the US 74 ramp terminals. With either the east or west side widening options, US 221 would be widened to the east through and north of the US 74 interchange to maintain the appropriate vertical clearance under the US 221 bridge.

Table 2. Proposed Widening Alternatives and Resources within the Project Corridor

Section	To/From	Section Length (mile)	Widening Direction	Streams (feet)	Wetlands (acre)	Dwarf-flowered Heartleaf (acre)*	Homes	Businesses
1	SCSL/SR2105	0.9	West	224	0.02	0.01	6	2
2	SR 2105/S of SR 2109	1.8	East	666	0	0.33	0	1
			West	855	0.02	0.24	0	4
3	S of SR 2109/S of SR 2230	1.4	East	1,022	0	0	21	6
4	S of SR 2230/SR 2215	2.9	East	873	0.05	0.07	13	2
5	SR 2215/N of US 74	3.9	East (23')	558	0.04	0	54	6
			East (46')	592	0.03	0	64	10
			West (23')	571	0.04	0	53	10
			West (46')	627	0.03	0	68	11

*Area containing Dwarf-flowered heartleaf within the project construction limits.

Table 3. Total Impacts for Proposed Alternative Combinations

Alternative Combination					Streams (feet)	Wetlands (acre)	Dwarf-flowered Heartleaf (acre)*	Homes	Businesses
1	2	3	4	5					
W	W	E	E	W46	3,601	0.12	0.32	112	21
W	W	E	E	W23	3,545	0.13	0.32	97	20
W	E	E	E	W46	3,412	0.1	0.41	109	21
W	E	E	E	W23	3,356	0.11	0.41	94	20
W	W	E	E	E46	3,566	0.12	0.32	108	20
W	W	E	E	E23	3,532	0.13	0.32	98	16
W	E	E	E	E46	3,377	0.1	0.41	105	20
W	E	E	E	E23	3,343	0.11	0.41	95	16

*Area containing Dwarf-flowered heartleaf within the project construction limits.

“W46”=West-side widening with 46’ median. “W23”=West-side widening with 23’ median.

“E46”=East-side widening with 46’ median. “E23”=East-side widening with 23’ median.

Other Required Authorizations

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice in the NCDWQ Central Office in Raleigh serves as application to the NCDWQ for certification. A waiver will be deemed to

occur if the NCDWQ fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, Transportation Permitting Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 1650 Mail Service Center, Raleigh, North Carolina 27699-1650 Attention: Mr. John Hennessy by October 21, 2005.

Cultural Resources

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work.

Endangered Species

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps has determined pursuant to the Endangered Species Act of 1973 (ESA), that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat. Appropriate roosting habitat for the Indiana bat, endangered, is located within the project area. In order to minimize potential effects on this species, the cutting of dead trees with exfoliating bark should only be undertaken during the bats' hibernation period. If this precaution is undertaken, a biological conclusion of "May Affect, Not Likely to Adversely Affect" would be appropriate for the Indiana bat. Suitable habitat and healthy, vigorous populations of dwarf-flowered heartleaf were found within the project area. All of the alternative widening combinations currently proposed will affect sites containing dwarf-flowered heartleaf. Therefore, a biological conclusion of "May Affect, Likely to Adversely Affect" would be appropriate for the dwarf-flowered heartleaf. Consultation under Section 7 of the ESA will be initiated and no permit will be issued until the consultation process is complete.

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, October 28, 2005. Comments should be submitted to

Ms. Angie Pennock
US Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, North Carolina 28801-5006

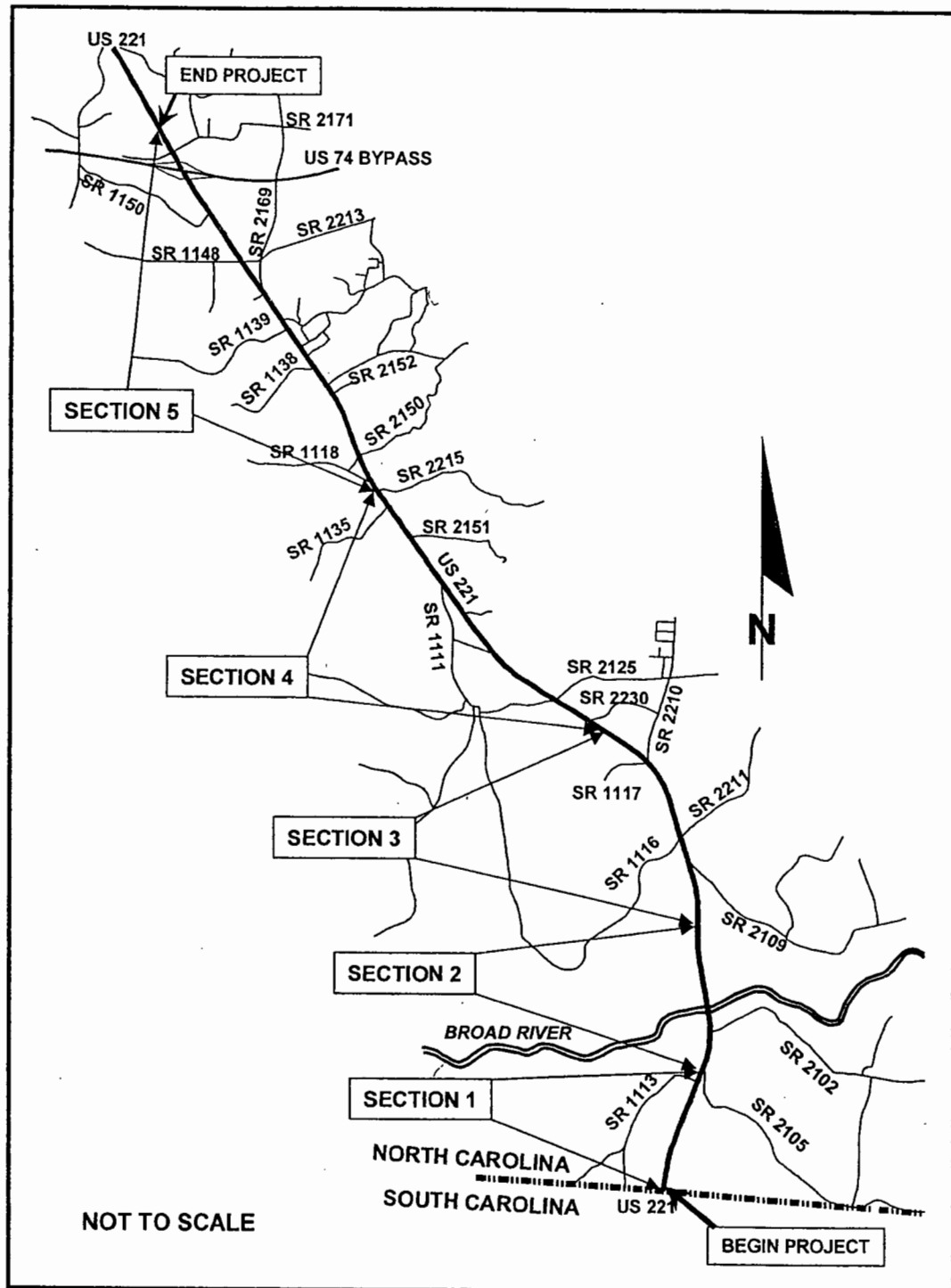
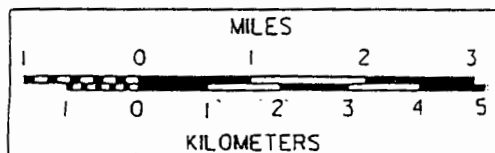
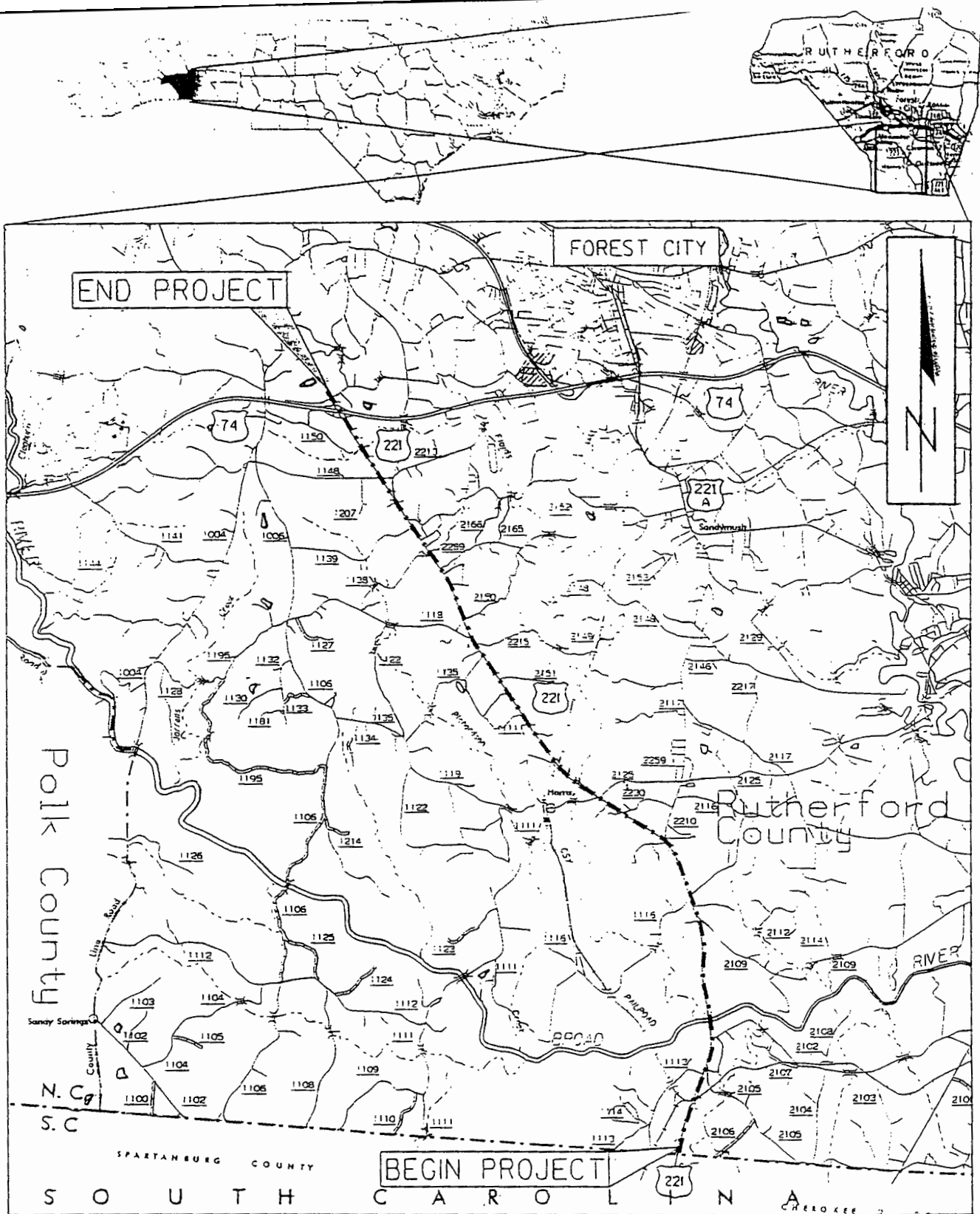


Figure 1 Project Sections




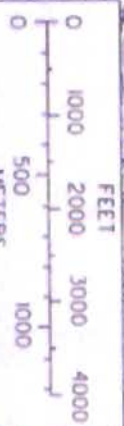
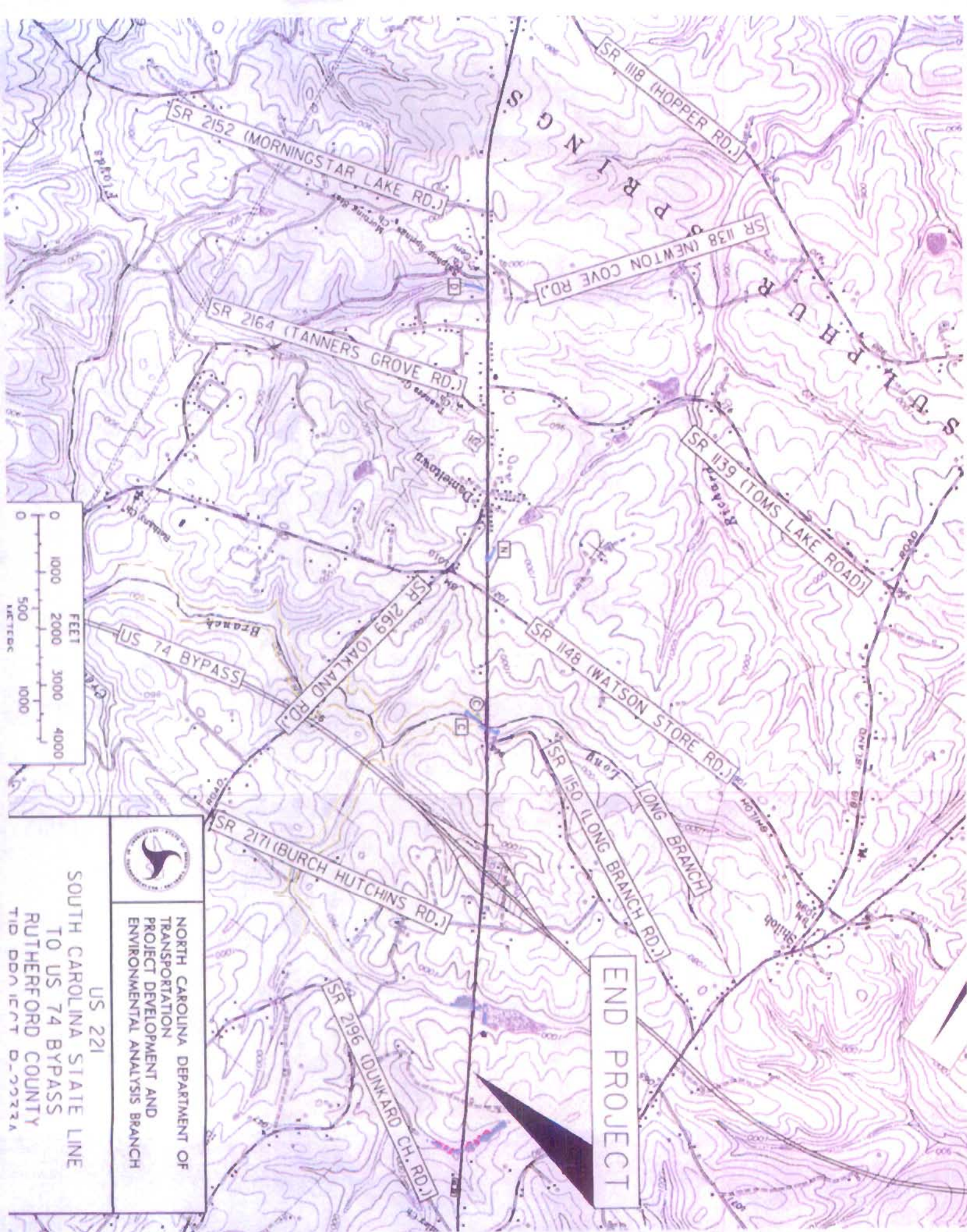
	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH
	US 221 SOUTH CAROLINA STATE LINE TO US 74 BYPASS RUTHERFORD COUNTY TIP PROJECT R-2233A

Figure 2





NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS BRANCH

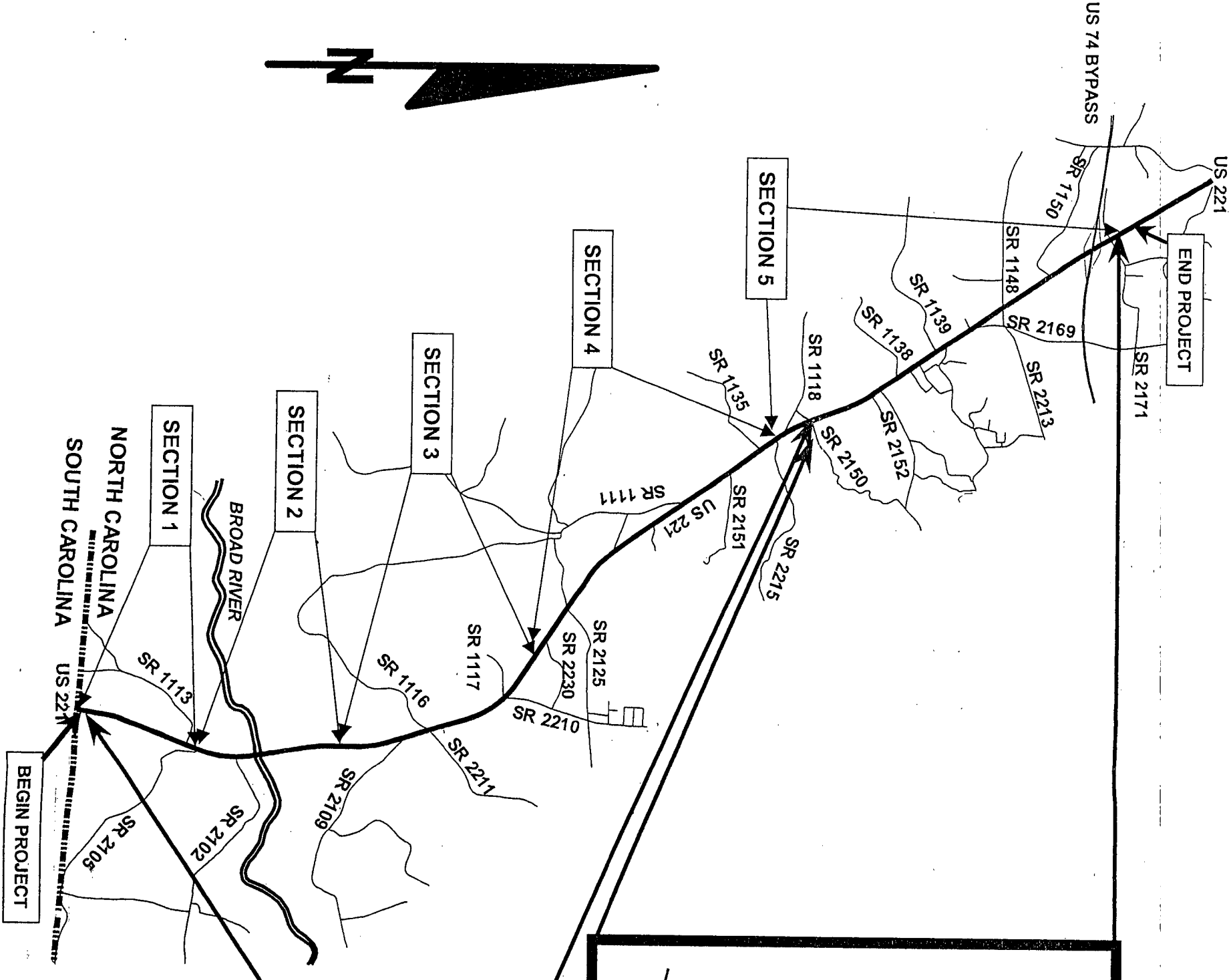
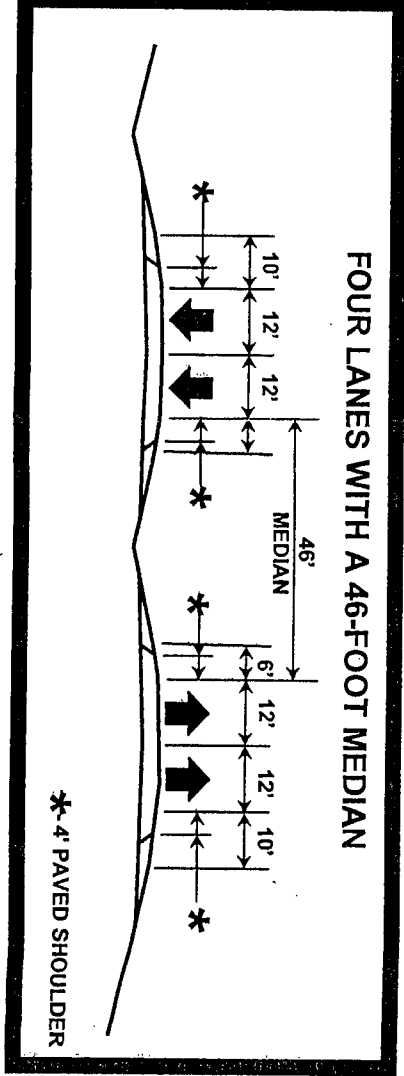
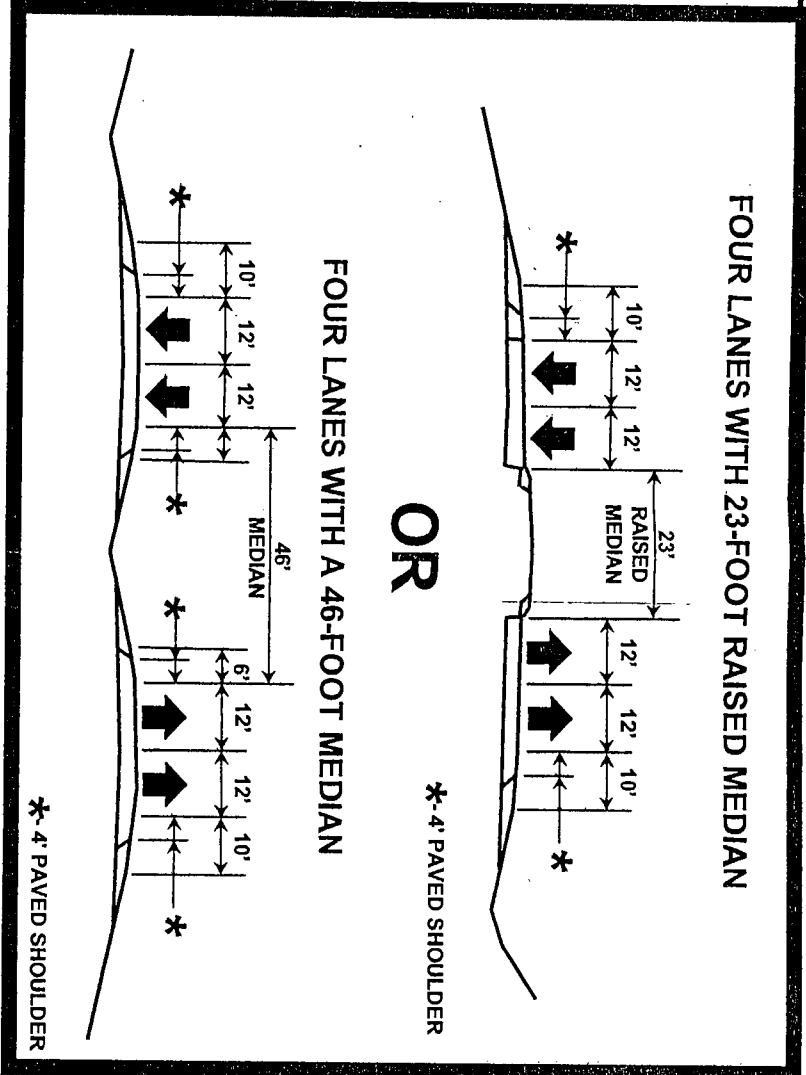
US 221

SOUTH CAROLINA STATE LINE
TO US 74 BYPASS

RUTHERFORD COUNTY
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TIP PROJECT R-2233A

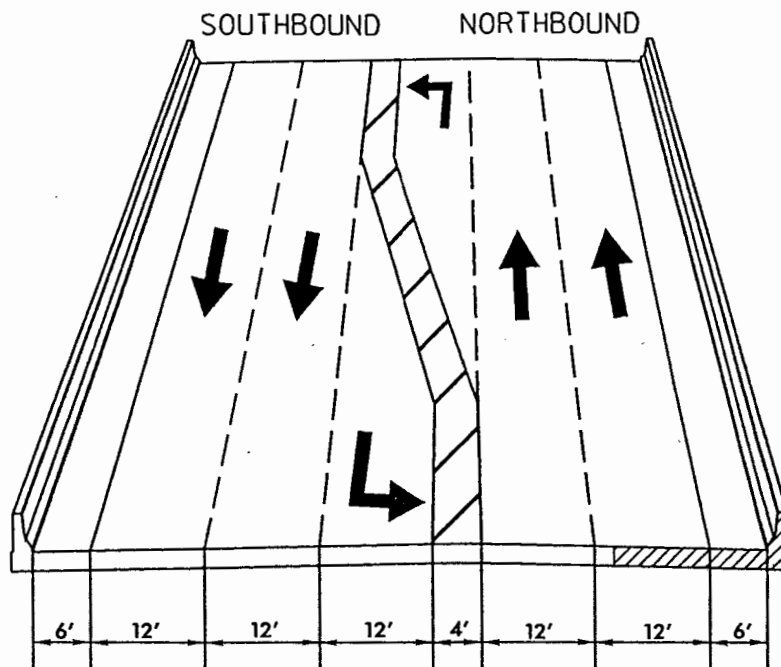
PROPOSED TYPICAL SECTIONS



NOT TO SCALE

FIGURE 4A

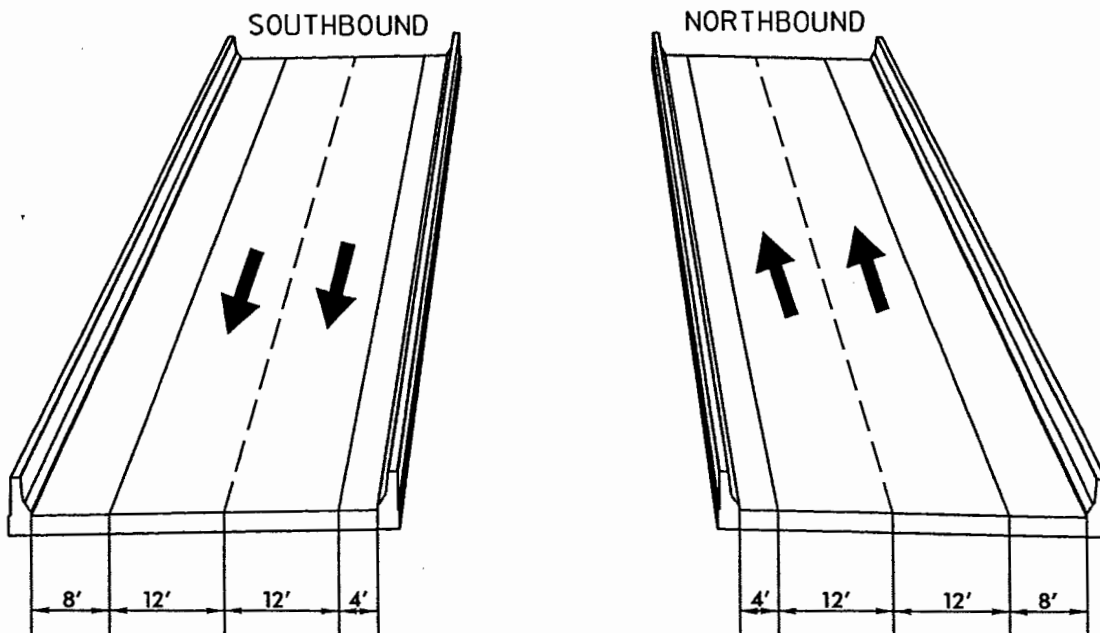
TIP PROJECT R-2233A



PROPOSED STRUCTURE WIDENING

TYPICAL SECTION ON EXISTING BRIDGE OVER US 74 BYPASS

NOT TO SCALE



TYPICAL SECTION ON PROPOSED NEW BRIDGES

FIGURE 4B